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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,603

04/14/2004

Dong-Ryong Kim

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EXAMINER

TRINH, TAN H

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/823,603

Applicant(s)

KIM, DONG-RYONG

Examiner

TAN TRINH

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Information Disclosure Statement*

1. The information disclosure statement (IDS) submitted on 08-17-2006 and 06-20-2007, the information disclosure statement has been considered by the examiner.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-9 and 17-24 are rejected under 35 U.S.C. 102(e) as being anticipated by Tomura (U.S. Patent No. 6,771,992).

Regarding claims 1 and 17, Tomura teaches in a mobile terminal (40) provided with a rotating key (11, 53 or 62) having a plurality of dome switches (18-1 and 18-2) (see fig. 1A-B and fig. 2-6, col. 1, lines 21-41) on one side which can detect a contact signal when pressed and a plurality of contact surfaces on the other side which can detect the position of the rotating key in each direction of rotation (see fig. 1A-B and 2-and 3B, col. 7, lines 31-60), a method for using the rotating key (53) comprising the steps of: detecting if the rotating key is turned or a dome switch is pressed in a menu or function selection mode (see col. 7, lines 31-60 and col. 8, lines 1-6, and lines 42-col. 9, lines 13); when the rotating key is turned (see col. 7, lines 31-60

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and col. 8, lines 1-6, and lines 42-col. 9, lines 13), selecting a menu according to the direction of rotation col. 7, lines 52-60 and col. 8, lines 1-6); and when a dome switch is pressed, selecting a menu or function according to the pressed dome switch (see col. 7, lines 31-60 and col. 8, lines 1-6, and lines 42-col. 9, lines 13 and col. 15, lines 52-col. 16, lines 67, and col. 17, lines 1-19).

Regarding claims 2 and 18, Tomura teaches the step of turning the rotating key to select a menu or function (see fig. 5-8, col. 7, lines 31-60) comprises: Tomura inherently teaches when the rotating key is turned clockwise, moving a cursor to menus or functions in a predetermined direction; and when the rotating key is turned counterclockwise, moving the cursor to menus or functions in the opposite direction (see fig. 5-8, col. 7, lines 31-60). In this case, the multi-function key-switch 53 mounted on the stick 61 and can be rotating with left to right and up/down (Y anX) axis depend which direction is turn, the clockwise can be left to right or (Y1 to X1) and counterclockwise can be right to left (X1 to Y1) For selecting the items or change of menus of items.

Regarding claims 3 and 19, Tomura inherently teaches in an up/down scroll display mode, the cursor moves to upper menus or functions when the rotating key is turned clockwise and to lower menus or functions when the rotating key is turned counterclockwise (see fig. 5-8, col. 7, lines 31-60). In this case, the multi-function key-switch 53 mounted on the stick 61 and can be rotating with left to right and up/down (Y anX) axis depend which direction is turn, the clockwise can be left to right or (Y1 to X1) and counterclockwise can be right to left (X1 to Y1) For selecting the items or change of menus of items with cursor move up/down.

Regarding claims 4 and 20, Tomura inherently teaches the cursor moves to lower menus or functions when the rotating key is turned clockwise and to upper menus or functions when the rotating key is turned counterclockwise (see fig. 5-8, col. 7, lines 31-60). In this case, the multi-function key-switch 53 mounted on the stick 61 and can be rotating with left to right and up/down (Y and X) axis depend which direction is turn, the clockwise can be left to right or (Y1 to X1) and counterclockwise can be right to left (X1 to Y1) For selecting the items or change of menus of items with cursor move up/down.

Regarding claims 5 and 21, Tomura inherently teaches in a left/right scroll display mode, the cursor moves to left menus or functions when the rotating key is turned clockwise and to right menus or functions when the rotating key is turned counterclockwise (see fig. 5-8, col. 7, lines 31-60). In this case, the multi-function key-switch 53 mounted on the stick 61 and can be rotating with left to right and up/down (Y and X) axis depend which direction user at the start position is turn, the clockwise can be left to right or (Y1 to X1) and counterclockwise can be right to left (X1 to Y1) For selecting the items or change of menus of items with cursor move up/down.

Regarding claims 6 and 22, Tomura inherently teaches the cursor moves to right menus or functions when the rotating key is turned clockwise and to left menus or functions when the rotating key is turned counterclockwise (see fig. 5-8, col. 7, lines 31-60). In this case, the multi-function key-switch 53 mounted on the stick 61 and can be rotating with left to right and

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up/down (Y and X) axis depend which direction is turn, the clockwise can be left to right or (Y1 to X1) and counterclockwise can be right to left (X1 to Y1) For selecting the items or change of menus of items with cursor.

Regarding claims 7 and 23, Tomura teaches the step of pressing a dome switch to select a menu or function comprises: when a left or right dome switch is pressed (see fig. 1A-B and fig. 2-6, col. 1, lines 21-41), moving a cursor to left or right menus or functions; and when an upper or lower dome switch is pressed, moving the cursor to upper or lower menus or functions (see fig. 1A-B and fig. 2-6, col. 1, lines 21-41 and see fig. 5-8, col. 7, lines 31-60).

Regarding claims 8 and 24, Tomura inherently teaches the dome switches are used as short-cut keys (see fig. 5A-C, and col. 7, lines 31-67). In this case, the multi-function key is pressed on the dome switch to contact with other function that is a used as short-cut keys or the re-dialing switch is also the short-cut keys for re-dialing.

Regarding claim 9, Tomura inherently teaches the function comprises at least one of direction of motion picture (see col. 7, lines 53-67, col. 8, lines 1-6). In this case, the performed a display on the LCD unit 51, scrolls in Y1 direction, the item or picture display on the screen can be the motion picture.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 10-14 and 25-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomura (U.S. Patent No. 6,771,992) in view of Arai (U.S. Pub. No. 2004/0218738).

Regarding claims 10 and 25, Tomura teaches in a mobile terminal (40) provided with a rotating key (11, 53 or 62) having a plurality of dome switches (18-1 and 18-2) (see fig. 1A-B and fig. 2-6, col. 1, lines 21-41) the to detect a contact signal when pressed and a plurality of contact surfaces to detect the position of the rotating key in each direction of rotation (see fig. 1A-B and 2-and 3B, col. 7, lines 31-60), a method for using the rotating key (53) comprising the steps of: detecting if the rotating key is turned or a dome switch is pressed in a menu or function selection mode (see col. 7, lines 31-60 and col. 8, lines 1-6, and lines 42-col. 9, lines 13). But Tomura does not mention when a zoom function is selected in a camera mode, zooming in or out according to the direction and speed of rotation of the rotating key; and when a brightness control function is selected in the camera mode, controlling the brightness of a picture according to the direction and speed of rotation of the rotating key.

However, Arai teaches in a mobile terminal (300) provided with a camera (303) and a rotating key (531) (see fig. 2 and 18) when a zoom function is selected in a camera mode (see fig. 18, camera mode with zoom function on the rotation switch 531, page 11, sections [0198-0211]), zooming in or out according to the direction and speed of rotation of the rotating key (see

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fig. 18, rotating switch 531 up/down for zooming in or out); and when a brightness control function is selected in the camera mode (see page 3, sections [0054-0056 and page 11, sections [0208-0210]), controlling the brightness of a picture according to the direction and speed of rotation of the rotating key (see fig. 18 with function of switch 531 for controlling, and page 5, sections [0099-0103] for controlling while balance, gamma correction).

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Tomura with Arai, in order to provide user with two functions are attained using common switches, a compact low cost image communication device (see suggested by Arai on page 11, section [0210]).

Regarding claims 11 and 26, Arai teaches the step of zooming in or out in the camera mode (see fig. 18, page 11, sections [0202 and 0208]) and Arai also inherently teaches the comprises: when the rotating key is turned clockwise (see fig. 18, Switch 531 turn downward), zooming in or out according to the turning speed; and when the rotating key is turned counterclockwise (see fig. 18, Switch 531 turn upward), zooming out or in according to the turning speed (see fig. 18, page 11, section [0202 and 0208-0211]). In this case the switch 531 is serving as a zoom switch so the zoom in or out will be the turn of the speech of the switch 531.

Regarding claims 12 and 27, Arai teaches the step of controlling the brightness comprises: when the rotating key is turned clockwise, increasing or decreasing the brightness of the picture according to the turning speed; and when the rotating key is turned counterclockwise, decreasing or increasing the brightness of the picture according to the turning speed.



Regarding claims 13 and 28, Tomura teaches in a mobile terminal (40) provided with a rotating key (11, 53 or 62) having a plurality of dome switches (18-1 and 18-2) (see fig. 1A-B and fig. 2-6, col. col. 1, lines 21-41). And Arai teaches a multi-function switch 531 are used to perform the zoom function (see fig. 17-18, the multi-function switch 531, page 11, section [0202 and 0208-0211]). In this case the switch 531 with pressed on the dome switch and serving as a zoom switch so that the combination of Tomura and Arai teaches the limitation of the claim.

Regarding claim 14, Tomura teaches in a mobile terminal (40) provided with a rotating key (11, 53 or 62) having a plurality of dome switches (18-1 and 18-2) (see fig. 1A-B and fig. 2-6, col. col. 1, lines 21-41) on one side which can detect a contact signal when pressed and a plurality of contact surfaces on the other side which can detect the position of the rotating key in each direction of rotation (see fig. 1A-B and 2-and 3B, col. 7, lines 31-60). But Tomura does not mention in a mobile terminal provided with a camera and the step of the rotating key to reproduce a moving picture; when the rotating key is turned clockwise, reproducing the moving picture according to the turning speed in a predetermined direction corresponding to the clockwise turning; and when the rotating key is turned counterclockwise, reproducing the moving picture according to the turning speed in a predetermined direction corresponding to the counterclockwise turning.

However, Arai teaches in a mobile terminal (300) provided with a camera (303) and a rotating key (531) (see fig. 2 and 18) when a zoom function is selected in a camera mode (see fig. 18, camera mode with zoom function on the rotation switch 531, page 11, sections [0198-

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0211]), when the rotating key is turned clockwise, reproducing the moving picture according to the turning speed in a predetermined direction corresponding to the clockwise turning; and when the rotating key is turned counterclockwise, reproducing the moving picture according to the turning speed in a predetermined direction corresponding to the counterclockwise turning (see fig. 18, the rotation multi-function switch 531, page 11, sections [0198-0211], and page 9-10, sections [000170-0173]). In this case, the rotation multi-function switch 531 can be zooming in or out according to the direction and speed of rotation of the rotating key and also the execute a desired function while observing displayed menu items move or layout the items display like picture or text...with rotation multi-function switch 531.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Tomura with Arai, in order to provide user with two functions are attained using common switches, and adopts an efficient switch layout, a compact low cost image communication device (see suggested by Arai on page 10-11, section [0174 and 0210]).

6. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tomura (U.S. Patent No. 6,771,992) in view of Ritter (U.S. Patent No. 6,941,154).

Regarding claim 15, Tomura teaches in a mobile terminal (40) provided with a rotating key (11, 53 or 62) having a plurality of dome switches (18-1 and 18-2) (see fig. 1A-B and fig. 2-6, col. 1, lines 21-41) on one side which can detect a contact signal when pressed and a plurality of contact surfaces on the other side which can detect the position of the rotating key in each direction of rotation (see fig. 1A-B and 2-and 3B, col. 7, lines 31-60). But Tomura does not

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mention in a mobile terminal provided with a TV receiver detecting the direction of rotation of the rotating key to select a channel in a television mode; and displaying video signals broadcast on a channel selected according to the direction of rotation of the rotating key.

However, Ritter teaches in a mobile terminal provided with a TV receiver (fig. 1, col. 3, lines 9-23) detecting key (92) to select a channel in a television mode (fig. 1, col. 3, lines 9-23); and displaying video signals broadcast on a channel selected (see fig. 1, col. 5, lines 66-col. 6, lines 32). In this case, Tomura teaches the rotating key for select the menu items and Ritter teaches the selection key 92 for selected the function mode with the cursor go up/down, so that the combination of the rotating key of Tomura replace with mode selection switch 92 of Ritter for using in channel selection or other.

Therefore, it would have been obvious to one of ordinary skill in the art at the time invention was made to modify above teaching of Tomura with Ritter, in order to provide user with broadcast channel for playing in mobile terminal (see suggested by Ritter on col. 6, lines 18-41).

Regarding claim 16, Ritter teaches the dome switches (92) are used to select a channel (see col. 6, lines 2-27). In this case, the F-key 92 can selecting the channel and also order the a production.

### ***Conclusion***

7. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

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**(571) 273-8300, (for Technology Center 2600 only)**

*Hand-delivered responses should be brought to the Customer Service Window (now located at the **Randolph Building, 401 Dulany Street, Alexandria, VA 22314**).*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Trinh whose telephone number is (571) 272-7888. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiners supervisor, Anderson, Matthew D., can be reached at (571) 272-4177.

The fax phone number for the organization where this application or proceeding is assigned is **(571) 273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Technology Center 2600 Customer Service Office** whose telephone number is **(703) 306-0377**.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tan H. Trinh  
Division 2618  
August 13, 2007

**PATENT EXAMINER**  
**TRINH, TAN**

